CITY OF FLAGSTAFF

Community Greenhouse Gas
Emissions Report
Calendar Years 2013 & 2014

be resourceful

Flagstaff Sustainability
Program

CITY OF FLAGSTAFF · ARIZONA · ESTABLISHED 1882 ·

Introduction

Why We Track:

The City of Flagstaff is committed to making Flagstaff more resourceful and resilient city. And one important component of resilience in Flagstaff is contribution toward climate change solutions. Tracking community trends in resource consumption is one way to better understand the direction our community is heading. Are we using more or less resources with each each passing year? This is important, because the first step toward making change is understanding where you are now.

What We Track:

Here is the list of the data that we are carefully monitoring:

- Electricity consumption for residential, commercial, and industrial sectors
- Natural Gas consumption for residential, commercial, and industrial sectors
- Gasoline and Diesel fuel consumed by Flagstaff community
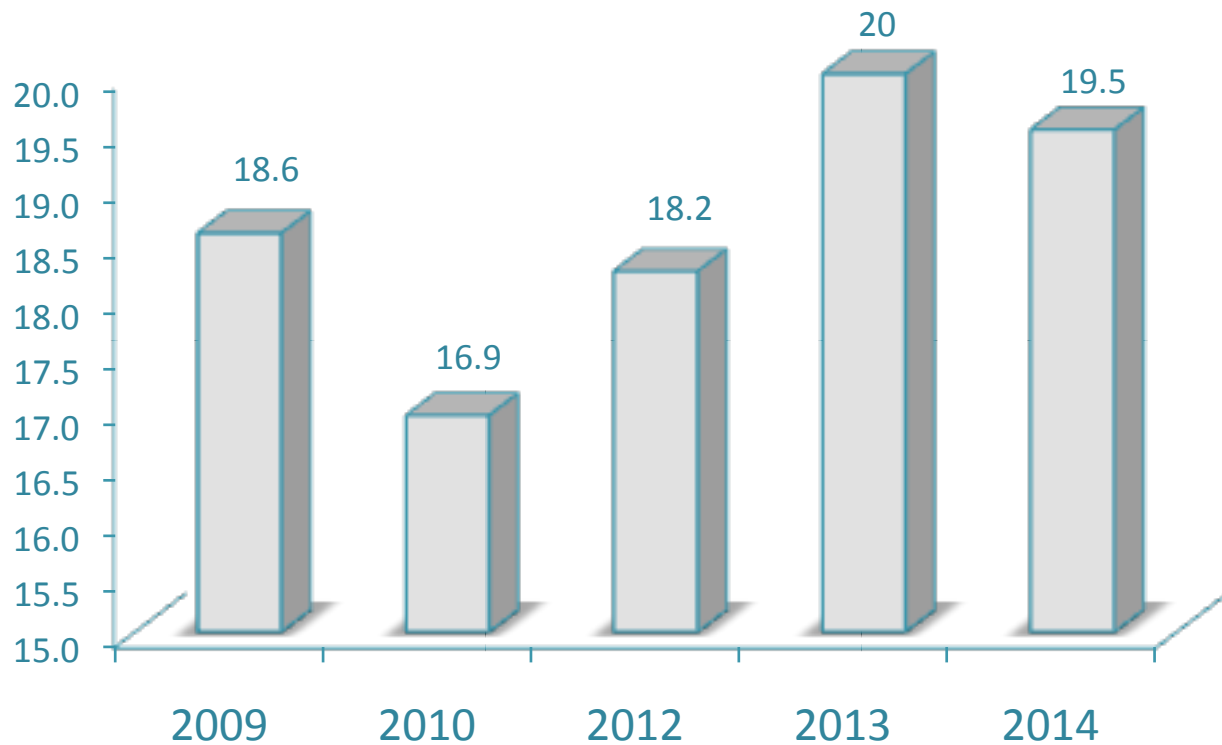- Tons of waste sent to landfill

Other considerations:

The production of greenhouse gases are not limited to activities like energy production and fuel consumption. The food we eat, for example, also contributes to greenhouse gas emissions through the amount of fossil fuels required to manage, transport, and process it. The clothes and other material goods we purchase also contribute to greenhouse gas emissions through the amount of energy required to produce and manufacture them. These emission sources are difficult to approximate at the community scale, but you can learn more about your own emissions online by using a carbon footprint calculator. Because these calculations are not included in our data, the metric tons of carbon produced per person listed in our report are slightly lower than a true full accounting would provide.

To find out more about our data sources or emissions calculations, send us an e-mail at
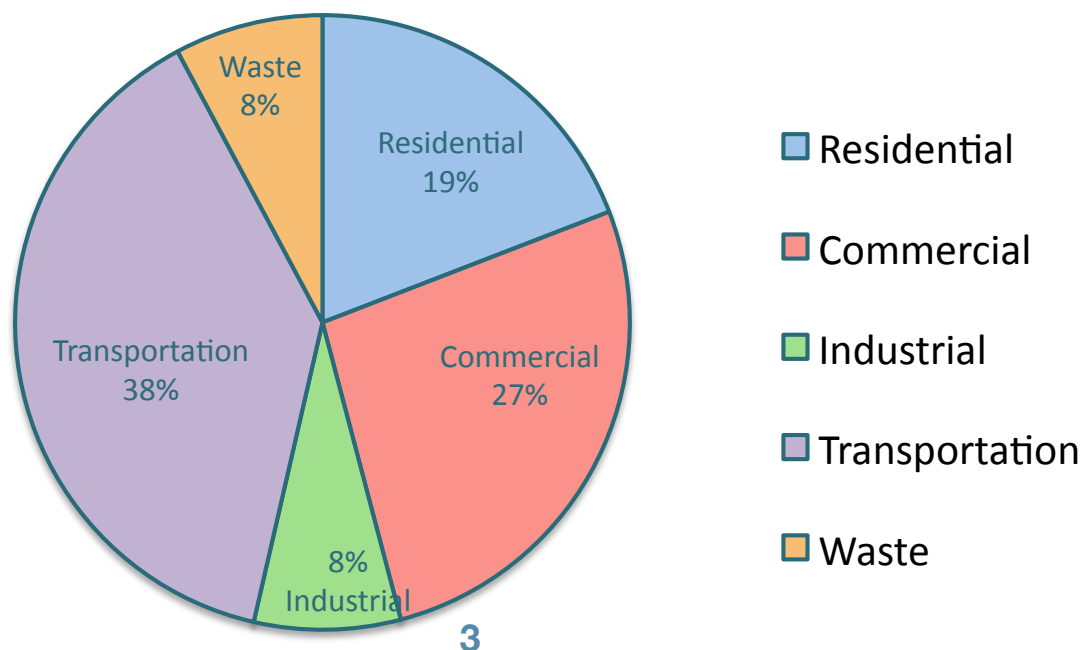sustainability@flagstaffaz.gov.

Community Emissions Summary
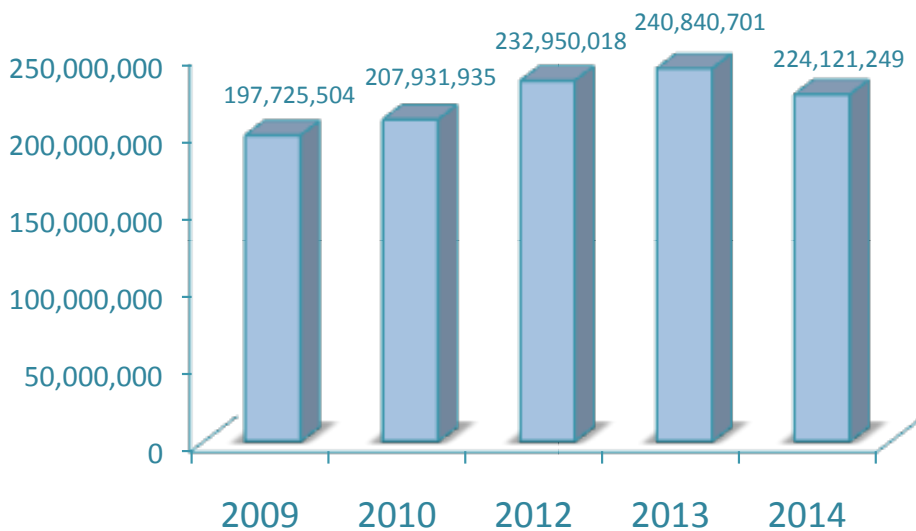
Per Capita Metric Tons of CO2e*

*CO2e means "carbon dioxide equivalents," and is the translation of all types of greenhouse gases into the amount of carbon dioxide which would create the same amount of climate change potential.
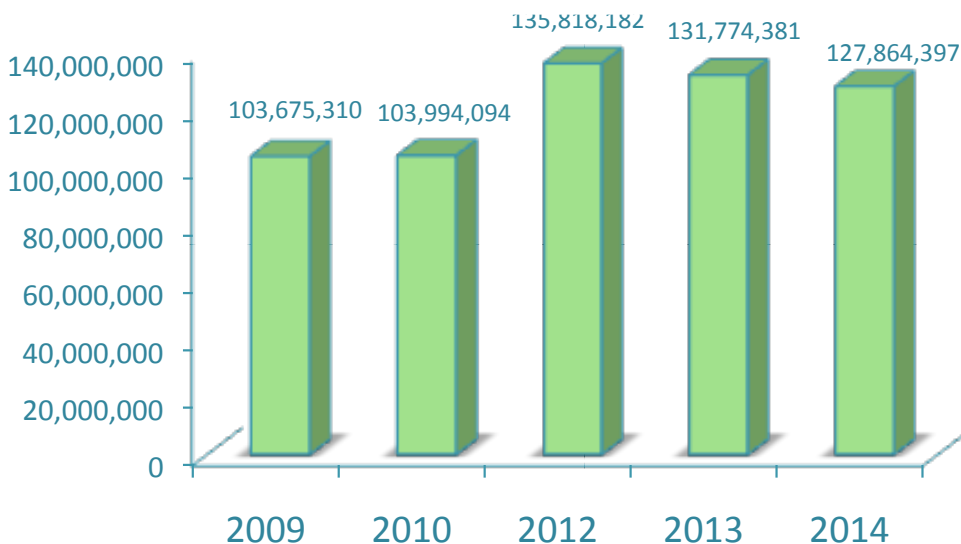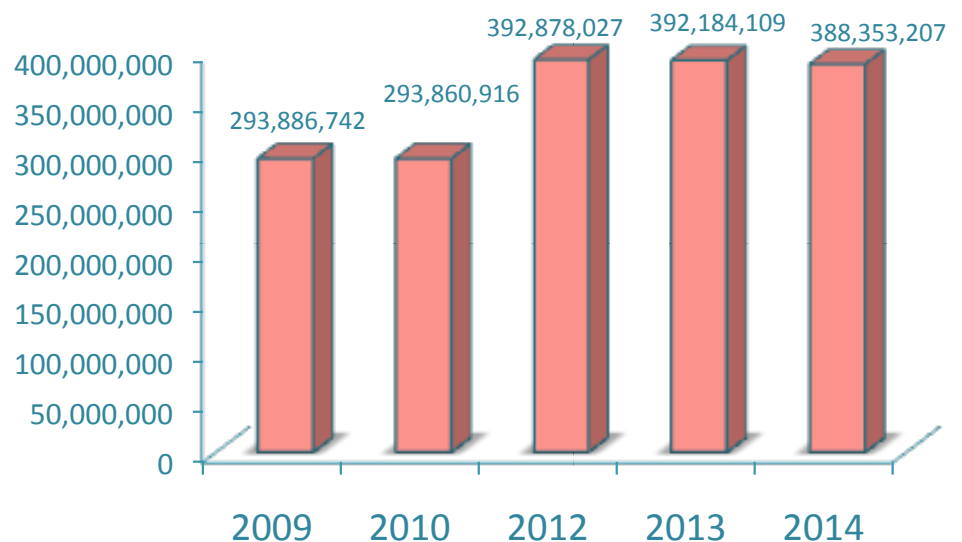
2013 & 2014 Emissions by Source

Residential
Commercial
Industrial
Transportation
Waste

3

Electricity Consumption by Sector

Residential Kilowatt Hours Consumed

250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0

197,725,504   207,931,935   232,950,018   240,840,701   224,121,249

2009   2010   2012   2013   2014

Electricity consumption has gone down slightly over the past few years, likely due to advances in energy efficiency.

Commercial Kilowatt Hours Consumed
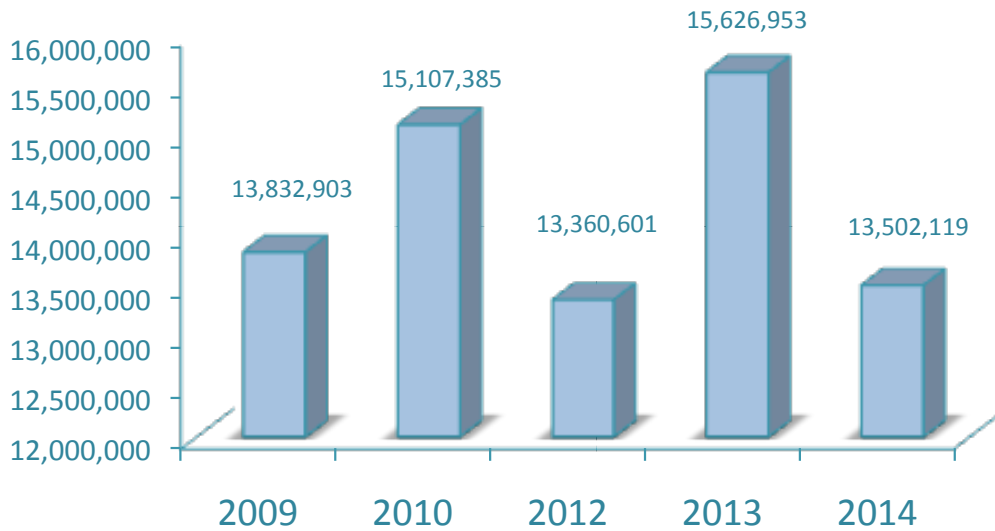

400,000,000
350,000,000
300,000,000
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0

293,886,742   293,860,916   392,878,027   392,184,109   388,353,207

2009   2010   2012   2013   2014

Industrial Kilowatt Hours Consumed

140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0

103,675,310   103,994,094   135,818,182   131,774,381   127,864,397
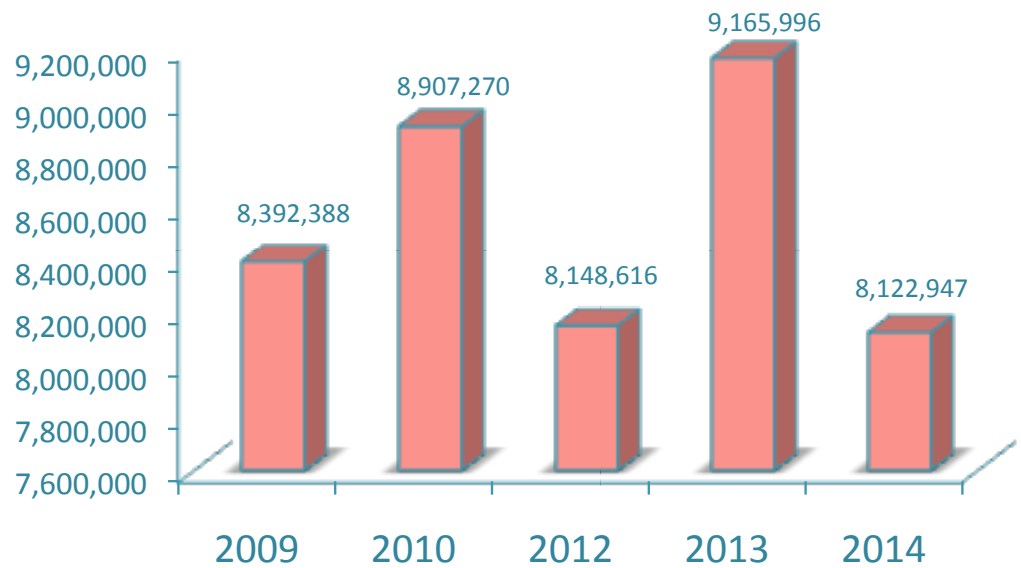
2009   2010   2012   2013   2014

Natural Gas Consumption by Sector

Residential Therms Consumed

> Weather variation has a strong effect on natural gas consumption, especially in the residential and commercial sectors.
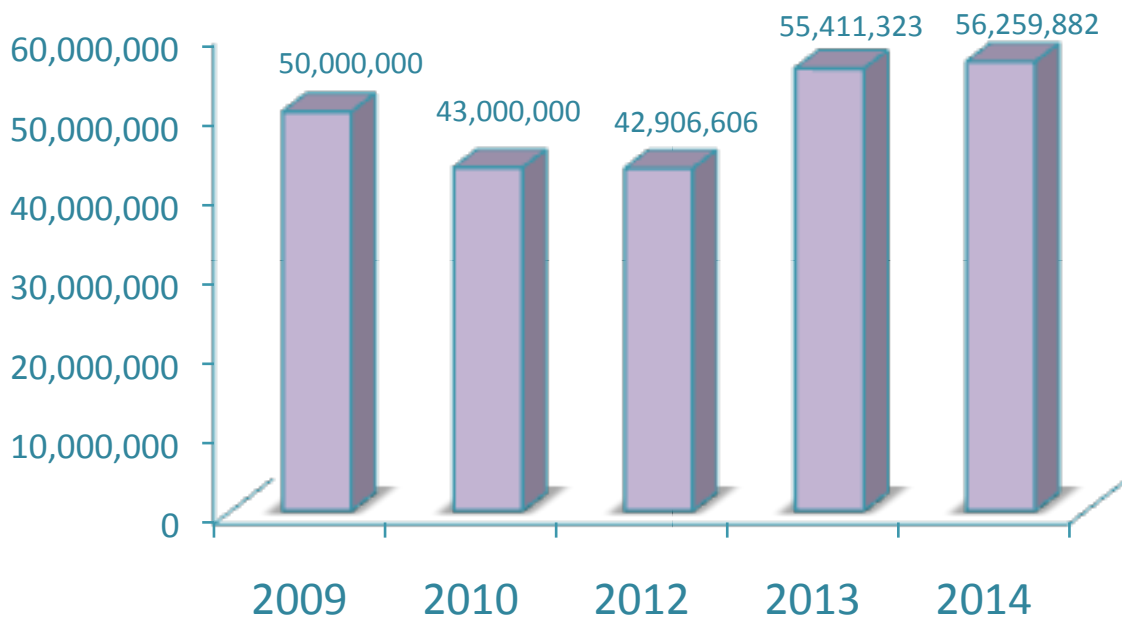
Residential Therms Consumed:
- 2009: 13,832,903
- 2010: 15,107,385
- 2012: 13,360,601
- 2013: 15,626,953
- 2014: 13,502,119

Commercial Therms Consumed

Commercial Therms Consumed:
- 2009: 8,392,388
- 2010: 8,907,270
- 2012: 8,148,616
- 2013: 9,165,996
- 2014: 8,122,947

Industrial Therms Consumed

Industrial Therms Consumed:
- 2009: 19,917
- 2010: 15,541
- 2012: 17,078
- 2013: 16,605
- 2014: 19,521

Transportation

Total Gallons of Gasoline and Diesel Consumed

Fuel sales dipped during the recession, but are now back on the rise

Waste

Tons of Waste Sent to Landfill